

CLAIMS:

1. A color image forming apparatus forming a full color image by superimposing images of individual colors, comprising:

a plurality of image forming devices including image bearing members configured to rotate or to move, development devices, and transfer devices, and configured to form images of individual colors on the image bearing members by illuminating the image bearing members with image light according to image data of individual colors to form latent images of individual colors on the image bearing members and to develop the latent images of individual colors on the image bearing members with toner by the development devices, respectively;

a transfer member driven to rotate or to move, wherein the images of individual colors on the image bearing members of the plurality of image forming devices are sequentially transferred by the transfer devices of the plurality of image forming devices directly onto a recording sheet being conveyed by the transfer member while being superimposed on top of one another on the recording sheet, and thereby a full color image is formed on the recording sheet, or the images of individual colors on the image bearing members of the plurality of image forming devices are sequentially transferred by the transfer devices of the plurality of image forming devices once onto the transfer member while being superimposed on top of one another on the transfer member and then the images of individual colors superimposed on top of one another are transferred onto a recording sheet, and thereby a full color image is formed on the recording sheet;

a detection device;

a correction device configured to perform an operation of correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image, wherein in the operation, a full color pattern image for correcting of a pattern of lines is formed on the transfer member by forming latent pattern images for correcting of individual colors on the image bearing members of the plurality of image forming devices, the latent pattern images for correcting of individual colors are developed on the image bearing members with toner into pattern images for correcting of individual colors by the development devices of the plurality image forming devices, the pattern images for correcting of individual colors are transferred by the transfer devices of the plurality of image forming devices while being superimposed one on top of

another on the transfer member, and each line of the pattern of lines of the pattern image for correcting formed on the transfer member is detected with the detection device to determine a width of each line of the pattern of lines of the pattern image for correcting on the transfer member; and

a correction possibility determination device configured to determine whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, by:

forming a full color pattern image for checking of a pattern of lines on the transfer member by forming latent pattern images for checking of individual colors on the image bearing members of the plurality of image forming devices,

developing the latent pattern images for checking of individual colors on the image bearing members with toner into pattern images for checking of individual colors by the development devices of the plurality of image forming devices,

transferring the pattern images for checking of individual colors on the image bearing members by the transfer devices of the plurality of image forming devices while being superimposed one on top of another on the transfer member,

detecting each line of the pattern of lines of the pattern image for checking formed on the transfer member with the detection device to output a detection signal of each line of the pattern of lines of the pattern image for checking formed on the transfer member, and determining if a width of each line of the pattern of lines of the pattern image for checking formed on the transfer member is equal to or greater than a reference value based on the detection signal of each line of the pattern of lines of the pattern image for checking formed on the transfer member, wherein the correction possibility determination device determines that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, when the width of each line of the pattern of lines of the pattern image for checking formed on the transfer member has been determined to be equal to or greater than the reference value, and that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, when the width of any one line of the pattern of lines of the pattern image for checking formed on the transfer member has been determined to be not equal to or greater than the reference value,

wherein the correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image is performed by the correction device when the correction possibility determination device has determined that the width of each line of the pattern of lines of the pattern image for checking formed on the transfer member is equal to or greater than the reference value, and thereby that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively.

2. The color image forming apparatus according to Claim 1, wherein when the correction possibility determination device has determined that the width of any one line of the pattern of lines of the pattern image for checking formed on the transfer member is not equal to or greater than the reference value and thereby that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, the correction possibility determination device changes an image forming condition of each image forming device of the plurality of image forming devices, with which a line of the pattern of lines of the pattern image for checking on the transfer member, the width of which has been determined to be not equal to or greater than the reference value, has been formed, and thereafter the correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image is performed by the correction device.

3. The color image forming apparatus according to Claim 2, wherein when the correction possibility determination device changes the image forming condition of the image forming device, the correction possibility determination device changes an amount of exposure energy of image light illuminating the image bearing member of the image forming device.

4. The color image forming apparatus according to Claim 3, wherein when the correction possibility determination device changes the amount of exposure energy of image light illuminating the image bearing member of the image forming device, the correction possibility determination device changes a light quantity of the image light.

5. The color image forming apparatus according to Claim 3, wherein when the correction possibility determination device changes the amount of exposure energy of image light illuminating the image bearing member of the image forming device, the correction possibility determination device changes an emitting time period of the image light.

6. The color image forming apparatus according to Claim 2, wherein when the correction possibility determination device changes the image forming condition of the image forming device, the correction possibility determination device changes at least one of: a development bias voltage of the development device of the image forming device, a transfer bias current of the transfer device of the image forming device, a toner density of the development device of the image forming device, and a rotation speed of the image bearing member of the image forming device.

7. The color image forming apparatus according to Claim 6, wherein when the correcting possibility determination device changes the image forming condition of the image forming device, if a toner density of the development device of the image forming device is lower than a predetermined value, the correction possibility determination device changes the toner density of the development device of the image forming device.

8. The color image forming apparatus according to Claim 7, wherein when the correcting possibility determination device changes the image forming condition of the image forming device, if the toner density of the development device of the image forming device is not lower than the predetermined value, the correction possibility determination device changes at least one of: the development bias voltage of the development device, the transfer bias current of the transfer device, and the rotation speed of the image bearing member.

9. The color image forming apparatus according to Claim 6, wherein when the correction possibility determination device changes the image forming condition of the image forming device, first an amount of exposure energy of image light illuminating the image bearing member of the image forming device is changed within a predetermined range, and thereafter if it is still determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, when the toner density of the development device is lower than a predetermined value, the correction possibility determination device changes

the toner density of the development device, and when the toner density of the development device is not lower than the predetermined value, the correction possibility determination device changes at least one of: the development bias voltage of the development device, the transfer bias current of the transfer device, and the rotation speed of the image bearing member.

10. The color image forming apparatus according to Claim 1, wherein the correction possibility determination device is configured to determine that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected when it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected even after determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected a plurality of times at certain intervals.

11. The color image forming apparatus according to Claim 10, wherein the correction possibility determination device is configured to determine that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected when it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected even after determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected a plurality of times at intervals in which images of a predetermined quantity are formed.

12. The color image forming apparatus according to Claim 1, wherein the pattern of lines of the pattern image for correcting and the pattern of lines of the pattern image for checking are similar to each other.

13. The color image forming apparatus according to Claim 1, wherein each of the pattern image for checking and the pattern image for correcting is formed on a part of the

transfer member between a part of the transfer member conveying a recording sheet on which an image of a page has been formed, and a part of the transfer member conveying a recording sheet on which an image of a next page has been formed, and wherein the part of the transfer member where the pattern image for checking is formed is at a downstream side of the part of the transfer member where the pattern image for correcting is formed in a direction in which the transfer member is conveyed.

14. A color image forming apparatus forming a full color image by superimposing images of individual colors, comprising:

a plurality of image forming devices including image bearing members configured to rotate or to move, development devices, and transfer devices, and configured to form images of individual colors on the image bearing members by illuminating the image bearing members with image light according to image data of individual colors to form latent images of individual colors on the image bearing members and to develop the latent images of individual colors on the image bearing members with toner by the development devices, respectively;

a transfer member driven to rotate or to move, wherein the images of individual colors on the image bearing members are sequentially transferred by the transfer devices of the plurality of image forming devices directly onto a recording sheet being conveyed by the transfer member while being superimposed on top of one another on the recording sheet, and thereby a full color image is formed on the recording sheet, or the images of individual colors on the image bearing members are sequentially transferred by the transfer devices of the plurality of image forming devices once onto the transfer member while being superimposed on top of one another on the transfer member and then the images of individual colors superimposed on top of one another on the transfer member are transferred onto a recording sheet, and thereby a full color image is formed on the recording sheet;

a detection device; and

a correction device configured to perform an operation of correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image, wherein in the operation, a full color pattern image of a pattern of lines for correcting is formed on the transfer member by forming latent pattern images for correcting of individual colors on the image bearing members of the plurality of image forming devices, the latent pattern images for correcting of individual colors is developed on the image bearing members with toner into pattern images

for correcting of individual colors with the development devices of the plurality image forming devices, and the pattern images for correcting of individual colors on the image bearing members are transferred onto the transfer member by the transfer devices of the plurality of image forming devices while being superimposed one on top of another on the transfer member, each line of the pattern of lines of the pattern image for correcting formed on the transfer member is detected with the detection device to output a detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member, and a width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member is determined based on the detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member, output from the detection device, and a threshold level,

wherein the threshold level used in determining the width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member can be changed.

15. The color image forming apparatus according to Claim 14, further comprising:
a correction possibility determination device configured to determine whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, by determining if a peak level of the detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member, the detection signal having been output from the detection device, is equal to or lower than a reference value predetermined relative to the threshold level, wherein the correction possibility determination device determines that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, when the peak level of the detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member is equal to or below the reference value, and that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, when the peak level of the detection signal of any one line of the pattern of lines of the pattern image for correcting formed on the transfer member is not equal to or below the reference value,

wherein when the correction possibility determination device has determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected,

respectively, the width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member is determined by the correction device based on the detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member, output from the detection device, and the threshold level, and when the correction possibility determination device has determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, the threshold level is changed, and thereafter the width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member is determined by the correction device based on the detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member, output from the detection device, and the threshold level after having been changed.

16. The color image forming apparatus according to Claim 14, wherein when the threshold level has been changed, the threshold level is returned to a level before having been changed after the correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image has been completed.

17. The color image forming apparatus according to Claim 14, further comprising:
an operation panel,
wherein the threshold level is changed by manipulation of the operation panel.

18. The color image forming apparatus according to Claim 14, further comprising:
a correction possibility determination device configured to determine whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, before the correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image is performed with the correction device by:

forming a full color pattern image for checking of a pattern of lines by forming latent pattern images for checking of individual colors on the image bearing members of the plurality of image forming devices;

developing the latent pattern images for checking of individual colors on the image bearing members with toner into pattern images for checking of individual colors by the development devices of the plurality image forming devices;

transferring the pattern images for checking of individual colors on the image bearing members onto the transfer member with the transfer devices of the plurality of image forming devices while being superimposed one on top of another on the transfer member;

detecting each line of the pattern of lines of the pattern image for checking formed on the transfer member with the detection device to output a detection signal of each line of the pattern of lines of the pattern image for checking on the transfer member; and

determining if a peak level of the detection signal of each line of the pattern of lines of the pattern image for checking formed on the transfer member, the detection signal being output from the detection device, is equal to or lower than a reference value predetermined relative to the threshold level, wherein the correction possibility determination device determines that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, when the peak level of the detection signal of each line of the pattern of lines of the pattern image for checking formed on the transfer member is equal to or below the reference value, and that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, when the peak level of the detection signal of any one line of the pattern of lines of the pattern image for checking formed on the transfer member is not equal to or below the reference value,

wherein when the correction possibility determination device has determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, the correction device performs the correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image, and when the correction possibility determination device has determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, the threshold level is changed and thereafter the

correction device performs the operation of correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image.

19. The color image forming apparatus according to Claim 15, wherein the correction possibility determination device is configured to determine that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected when it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected even after determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected a plurality of times at certain intervals.

20. The color image forming apparatus according to Claim 19, wherein the correction possibility determination device is configured to determine that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected when it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected even after determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly performed a plurality of times at intervals in which images of a predetermined quantity are formed.

21. The color image forming apparatus according to Claim 18, wherein the pattern of lines of the pattern image for correcting and the pattern of lines of the pattern image for checking are similar to each other.

22. The color image forming apparatus according to Claim 18, wherein each of the pattern image for checking and the pattern image for correcting is formed on a part of the transfer member between a part of the transfer member conveying a recording sheet on which an image of a page has been formed, and a part of the transfer member conveying a recording

sheet on which an image of a next page has been formed, and wherein the part of the transfer member where the pattern image for checking is formed is at a downstream side of the part of the transfer member where the pattern image for correcting is formed in a direction in which the transfer member is conveyed.

23. A method of forming a full color image by superimposing images of individual colors in a color image forming apparatus, comprising:

forming a full color image on a recording sheet by forming latent images of individual colors on rotating or moving image bearing members of a plurality image forming devices of the apparatus by illuminating the image bearing members with image light according to image data of individual colors, developing the latent images of individual colors on the image bearing members with toner into images of individual colors with development devices of the plurality of image forming devices, respectively, and sequentially transferring the images of individual colors on the image bearing members with transfer devices of the plurality of image forming devices directly onto the recording sheet being conveyed by a transfer member of the apparatus while being superimposed one upon another on the recording sheet, thereby the full color image being formed on the recording sheet, or sequentially transferring the images of individual colors on the image bearing members with the transfer devices of the plurality of image forming devices once onto the transfer member while being superimposed one upon another on the transfer member and then transferring the superimposed images of individual colors on the transfer member onto the recording sheet, thereby the full color image being formed on the recording sheet;

determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, by:

forming a full color pattern image for checking of a pattern of lines on the transfer member by forming latent pattern images for checking of individual colors on the image bearing members of the plurality of image forming devices,

developing the latent pattern images for checking of individual colors on the image bearing members with toner into pattern images for checking of individual colors by the development devices of the plurality image forming devices,

transferring the pattern images for checking of individual colors on the image bearing members with the transfer devices of the plurality of image forming devices while being superimposed one on top of another on the transfer member,

detecting each line of the pattern of lines of the pattern image for checking formed on the transfer member with a detection device of the apparatus to output a detection signal of each line of the pattern of lines of the pattern image for checking formed on the transfer member, and

determining if a width of each line of the pattern of lines of the pattern image for checking formed on the transfer member is equal to or greater than a reference value based on the detection signal of each line of the pattern of lines of the pattern image for checking, wherein it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, when the width of each line of the pattern of lines of the pattern image for checking formed on the transfer member has been determined to be equal to or greater than the reference value, and that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, when the width of any one line of the pattern of lines of the pattern image for checking formed on the transfer member has been determined to be not equal to or greater than the reference value; and performing a correcting operation of correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image, wherein in the operation, a color pattern image for correcting of a pattern of lines is formed on the transfer member by forming latent pattern images for correcting of individual colors on the image bearing members of the plurality of image forming devices, the latent pattern images of individual colors are developed on the image bearing members with toner into pattern images for correcting of individual colors by the development devices of the plurality of image forming devices, the pattern images for correcting of individual colors formed on the image bearing members are transferred with the transfer devices of the plurality of image forming devices while being superimposed one on top of another on the transfer member, and each line of the pattern of lines of the pattern image for correcting formed on the transfer member is detected with the detection device to determine a width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member,

wherein the correcting operation is performed when it has been determined in the determining that deviations in position and errors in magnification ratio of images of

individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively.

24. The method according to Claim 23, further comprising:

changing an image forming condition of each image forming device of the plurality of image forming devices, with which a line of the pattern of lines of the pattern image for checking formed on the transfer member, the width of which has been determined to be not equal to or greater than the reference value in the determining, has been formed,

wherein the image forming condition changing is performed when in the determining, the width of any one line of the pattern of lines of the pattern image for checking on the transfer member has been determined to be not equal to or greater than the reference value and thereby it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, and the correcting is performed after the image forming condition changing has been performed.

25. The method according to Claim 24, wherein in the image forming condition changing when the image forming condition of the image forming device is changed, an amount of exposure energy of image light illuminating the image bearing member of the image forming device is changed.

26. The method according to Claim 25, wherein in the image forming condition changing when the amount of exposure energy of image light illuminating the image bearing member of the image forming device is changed, a light quantity of the image light illuminating the image bearing member of the image forming device is changed.

27. The method according to Claim 25, wherein in the image forming condition changing when the amount of exposure energy of image light illuminating the image bearing member of the image forming device is changed, an emitting time period of the image light illuminating the image bearing member of the image forming device is changed.

28. The method according to Claim 24, wherein in the image forming condition changing when the image forming condition of the image forming device is changed, at least one of: a development bias voltage of the development device of the image forming device, a

transfer bias current of the transfer device of the image forming device, a toner density of the development device of the image forming device, and a rotating speed of the image bearing member of the image forming device is changed.

29. The method according to Claim 28, wherein in the image forming condition changing when the image forming condition of the image forming device is changed, if a toner density of the development device of the image forming device is lower than a predetermined value, the toner density of the development device of the image forming device is changed.

30. The method according to Claim 29, wherein in the image forming condition changing when the image forming condition of the image forming device is changed, if the toner density of the development device of the image forming device is not lower than the predetermined value, at least one of: the development bias voltage of the development device of the image forming device, the transfer bias current of the transfer device of the image forming device, and the rotation speed of the image bearing member of the image forming device is changed.

31. The method according to Claim 28, wherein in the image forming condition changing, when the image forming condition of the image forming device is changed, first an amount of exposure energy of image light illuminating the image bearing member of the image forming device is changed within a predetermined range, and thereafter if it is still determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, when the toner density of the development device of the image forming device is lower than a predetermined value, the toner density of the development device is changed, and when the toner density of the development device is not lower than the predetermined value, at least one of: the development bias voltage of the development device, the transfer bias current of the transfer device of the image forming device, and the rotation speed of the image bearing member of the image forming device are changed.

32. The method according to Claim 23, wherein in the determining it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly

corrected when it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected even after determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected a plurality of times at certain intervals.

33. The method according to Claim 32, wherein in the determining it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected when it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected even after determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected a plurality of times at intervals in which images of a predetermined quantity are formed.

34. The method according to 23, wherein the pattern of lines of the pattern image for correcting and the pattern of lines of the pattern image for checking are similar to each other.

35. The method according to Claim 23, wherein each of the pattern image for checking and the pattern image for correcting is formed on the transfer member between a part of the transfer member conveying a recording sheet on which an image of a page has been formed, and a part of the transfer member conveying a recording sheet on which an image of a next page has been formed, and wherein the part of the transfer member where the pattern image for checking is formed is at a downstream side of the part of the transfer member where the pattern image for correcting is formed in a direction in which the transfer member is conveyed.

36. A method of forming a full color image by superimposing images of individual colors in a color image forming apparatus, comprising:

forming a full color image on a recording sheet by forming latent images of individual colors on rotating or moving image bearing members of a plurality image forming devices of the apparatus by illuminating the image bearing members with image light according to

image data of individual colors, developing the latent images of individual colors on the image bearing members with toner into images of individual colors by development devices of the plurality of image forming devices, respectively; and sequentially transferring the images of individual colors on the image bearing members with transfer devices of the plurality of image forming devices directly onto the recording sheet being conveyed by a transfer member of the apparatus while being superimposed one upon another on the recording sheet, or sequentially transferring the images of individual colors on the image bearing members with the transfer devices of the plurality of image forming devices once onto the transfer member while being superimposed one upon another on the transfer member and then transferring the superimposed images of individual colors on the transfer member onto the recording sheet;

forming a full color pattern image for correcting of a pattern of lines by forming latent pattern images for correcting of individual colors on the image bearing members of the plurality of image forming devices, developing the latent pattern images for correcting on the image bearing members with toner into pattern images for correcting of individual colors by the development devices of the plurality image forming devices, and transferring the pattern images for correcting of individual colors on the image bearing members with the transfer devices of the plurality of image forming devices onto the transfer member while being superimposed one on top of another on the transfer member;

detecting each line of the pattern of lines of the pattern image for correcting formed on the transfer member with a detection device of the apparatus and outputting a detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member;

determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, by determining if a peak level of the detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member is equal to or lower than a reference value predetermined relative to a threshold level, wherein it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, when the peak level of the detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member has been determined to be equal to or lower than the reference value, and that deviations in position and errors in magnification ratio of images

of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, when the peak level of the detection signal of any one line of the pattern of lines of the pattern image for correcting formed on the transfer member has been determined to be not equal to or lower than the reference value;

correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image by determining a width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member based on the detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member, output from the detection device, and the threshold level; and

changing the threshold level that is used in the correcting in determining the width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member,

wherein when it has been determined in the determining that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, the correcting is performed thereafter, and when it has been determined in the determining that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, the changing is performed thereafter and the correcting is performed after the changing has been performed.

37. The method according to Claim 36, wherein the threshold level changed in the changing is returned to a level before having been changed after the correcting, that is performed after the changing, has been performed.

38. The method according to Claim 36, wherein in the changing, the threshold level is changed by manipulation of an operation panel of the apparatus.

39. A method of forming a full color image by superimposing images of individual colors in a color image forming apparatus, comprising:

forming a full color image on a recording sheet by forming latent images of individual colors on rotating or moving image bearing members of a plurality image forming devices of the apparatus by illuminating the image bearing members with image light according to

image data of individual colors, developing the latent images of individual colors on the image bearing members with toner into the images of individual colors by development devices of the plurality of image forming devices, respectively, and sequentially transferring the images of individual colors on the image bearing members with transfer devices of the plurality of image forming device directly onto the recording sheet being conveyed by a transfer member of the apparatus while being superimposed one upon another on the recording sheet, or sequentially transferring the images of individual colors on the image bearing members with the transfer devices of the plurality of image forming devices once onto the transfer member while being superimposed one upon another on the transfer member and then transferring the superimposed images of individual colors on the transfer member onto the recording sheet;

determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, by:

forming a full color pattern image for checking of a pattern of lines on the transfer member by forming latent pattern images for checking of individual colors on the image bearing members of the plurality of image forming devices,

developing the latent pattern images for checking of individual colors on the image bearing members with toner into pattern images for checking of individual colors by the development devices of the plurality image forming devices,

transferring the pattern images for checking of individual colors on the image bearing members onto the transfer member with the transfer devices of the plurality of image forming devices while being superimposed one on top of another on the transfer member,

detecting each line of the pattern of lines of the pattern image for checking formed on the transfer member with a detection device of the apparatus to output a detection signal of each line of the pattern of lines of the pattern image for checking formed on the transfer member, and

determining if a peak level of the detection signal of each line of the pattern of lines of the pattern image for checking formed on the transfer member is equal to or lower than a reference value predetermined relative to a threshold level, wherein it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, when the peak level of the detection

signal of each line of the pattern of lines of the pattern image for checking formed on the transfer member has been determined to be equal to or lower than the reference value, and that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, when the peak level of the detection signal of any one line of the pattern of lines of the pattern image for checking formed on the transfer member has been determined to be not equal to or lower than the reference value;

performing a correcting operation of correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image, wherein in the operation, a pattern image for correcting of a pattern of lines is formed on the transfer member by forming latent pattern images for correcting of individual colors on the image bearing members of the plurality of image forming devices, the latent pattern images for correcting of individual colors are developed on the image bearing members with toner into pattern images for correcting of individual colors by the development devices of the plurality image forming devices, the pattern images for correcting of individual colors on the image bearing members are transferred onto the transfer member with the transfer devices of the plurality of image forming devices while being superimposed one on top of another on the transfer member, each line of the pattern of lines of the pattern image for correcting formed on the transfer member is detected with the detection device to output a detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member, and a width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member is determined based on the detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member, output from the detection device, and the threshold level; and

changing the threshold level that is used in the correcting operation in determining the width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member,

wherein when it has been determined in the determining that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, the correcting operation is performed thereafter, and when it has been determined in the determining that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image

cannot be correctly corrected, respectively, the changing is performed thereafter and the correcting is performed after the changing has been performed.

40. The method according to Claim 39, wherein the threshold level changed in the changing is returned to a level before having been changed after the correcting operation performing, that is performed after the changing, has been performed.

41. The method according to Claim 39, wherein in the changing, the threshold level is changed by manipulation of an operation panel of the apparatus.

42. The method according to Claim 39, wherein in the determining, it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, when it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, even after determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, a plurality of times at certain intervals.

43. The method according to Claim 42, wherein in the determining, it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, when it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, even after determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, a plurality of times at intervals in which images of a predetermined quantity are formed.

44. The method according to 39, wherein the pattern of lines of the pattern image for correcting and the pattern of lines of the pattern image for checking are similar to each other.

45. The method according to Claim 39, wherein each of the pattern image for checking and the pattern image for correcting is formed on a part of the transfer member between a part of the transfer member conveying a recording sheet on which an image of a page has been formed, and a part of the transfer member conveying a recording sheet on which an image of a next page has been formed, and wherein the part of the transfer member where the pattern image for checking is formed is at a downstream side of the part of the transfer member where the pattern image for correcting is formed in a direction in which the transfer member is conveyed.

46. A computer readable medium storing computer program instructions which when executed by a computer performs an image forming operation of forming a color image by superimposing images of individual colors in a color image forming apparatus, the operation comprising:

forming a full color image on a recording sheet by forming latent images of individual colors on rotating or moving image bearing members of a plurality image forming devices of the apparatus by illuminating the image bearing members with image light according to image data of individual colors, developing the latent images of individual colors on the image bearing members with toner into images of individual colors with development devices of the plurality of image forming devices, respectively, and sequentially transferring the images of individual colors on the image bearing members with transfer devices of the plurality of image forming devices directly onto the recording sheet being conveyed by a transfer member of the apparatus while being superimposed one upon another on the recording sheet, thereby the full color image being formed on the recording sheet, or sequentially transferring the images of individual colors on the image bearing members with the transfer devices of the plurality of image forming devices once onto the transfer member while being superimposed one upon another on the transfer member and then transferring the superimposed images of individual colors on the transfer member onto the recording sheet, thereby the full color image being formed on the recording sheet;

determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, by:

forming a full color pattern image for checking of a pattern of lines on the transfer member by forming latent pattern images for checking of individual colors on the image bearing members of the plurality of image forming devices,

developing the latent pattern images for checking of individual colors on the image bearing members with toner into pattern images for checking of individual colors by the development devices of the plurality image forming devices,

transferring the pattern images for checking of individual colors on the image bearing members onto the transfer member with the transfer devices of the plurality of image forming devices while being superimposed one on top of another on the transfer member,

detecting each line of the pattern of lines of the pattern image for checking formed on the transfer member with a detection device of the apparatus to output a detection signal of each line of the pattern of lines of the pattern image for checking formed on the transfer member, and

determining if a width of each line of the pattern of lines of the pattern image for checking formed on the transfer member is equal to or greater than a reference value based on the detection signal of each line of the pattern of lines of the pattern image for checking, wherein it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, when the width of each line of the pattern of lines of the pattern image for checking formed on the transfer member has been determined to be equal to or greater than the reference value, and that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, when the width of any one line of the pattern of lines of the pattern image for checking formed on the transfer member has been determined to be not equal to or greater than the reference value; and performing a correcting operation of correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image, wherein in the operation, a color pattern image for correcting of a pattern of lines is formed on the transfer member by forming latent pattern images for correcting of individual colors on the image bearing members of the plurality of image forming devices, the latent pattern images for correcting of individual colors on the image bearing members are developed with toner into pattern images for correcting of individual colors by the development devices of the plurality image forming devices, the pattern images for correcting of individual colors formed on the image bearing members are transferred onto the transfer member with the transfer devices of the plurality of image

forming devices while being superimposed one on top of another on the transfer member, and each line of the pattern of lines of the pattern image for correcting formed on the transfer member is detected with the detection device to determine a width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member,

wherein the correcting operation is performed when it has been determined in the determining that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively.

47. The computer readable medium according to Claim 46, further comprising:
changing an image forming condition of each image forming device of the plurality of image forming devices, with which a line of the pattern of lines of the pattern image for checking formed on the transfer member, the width of which has been determined to be not equal to or greater than the reference value in the determining, has been formed,

wherein the image forming condition changing is performed when in the determining, the width of any one line of the pattern of lines of the pattern image for checking on the transfer member has been determined to be not equal to or greater than the reference value and thereby it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, and the correcting operation is performed after the image forming condition changing has been performed.

48. The computer readable medium according to Claim 47, wherein in the image forming condition changing when the image forming condition of the image forming device is changed, an amount of exposure energy of image light illuminating the image bearing member of the image forming device is changed.

49. The computer readable medium according to Claim 48, wherein in the image forming condition changing when the amount of exposure energy of image light illuminating the image bearing member of the image forming device is changed, a light quantity of the image light illuminating the image bearing member of the image forming device is changed.

50. The computer readable medium according to Claim 48, wherein in the image forming condition changing when the amount of exposure energy of image light illuminating

the image bearing member of the image forming device is changed, an emitting time period of the image light illuminating the image bearing member of the image forming device is changed.

51. The computer readable medium according to Claim 47, wherein in the image forming condition changing when the image forming condition of the image forming device is changed, at least one of: a development bias voltage of the development device of the image forming device, a transfer bias current of the transfer device of the image forming device, a toner density of the development device of the image forming device, and a rotating speed of the image bearing member of the image forming device is changed.

52. The computer readable medium according to Claim 51, wherein in the image forming condition changing when the image forming condition of the image forming device is changed, if a toner density of the development device of the image forming device is lower than a predetermined value, the toner density of the development device of the image forming device is changed.

53. The computer readable medium according to Claim 52, wherein in the image forming condition changing when the image forming condition of the image forming device is changed, if the toner density of the development device of the image forming device is not lower than the predetermined value, at least one of: the development bias voltage of the development device of the image forming device, the transfer bias current of the transfer device of the image forming device, and the rotation speed of the image bearing member of the image forming device is changed.

54. The computer readable medium according to Claim 51, wherein in the image forming condition changing, when the image forming condition of the image forming device is changed, first an amount of exposure energy of image light illuminating the image bearing member of the image forming device is changed within a predetermined range, and thereafter if it is still determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, when the toner density of the development device of the image forming device is lower than a predetermined value, the toner density of the development device is changed, and when the toner density of the development device is not lower than the

predetermined value, at least one of: the development bias voltage of the development device, the transfer bias current of the transfer device of the image forming device, and the rotation speed of the image bearing member of the image forming device is changed.

55. The computer readable medium according to Claim 46, wherein in the determining it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected when it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected even after determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected a plurality of times at certain intervals.

56. The computer readable medium according to Claim 55, wherein in the determining it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected when it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected even after determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected a plurality of times at intervals in which images of a predetermined quantity are formed.

57. The computer readable medium according to 46, wherein the pattern of lines of the pattern image for correcting and the pattern of lines of the pattern image for checking are similar to each other.

58. The computer readable medium according to Claim 46, wherein each of the pattern image for checking and the pattern image for correcting is formed on the transfer member between a part of the transfer member conveying a recording sheet on which an image of a page has been formed, and a part of the transfer member conveying a recording sheet on which an image of a next page has been formed, and wherein the part of the transfer

member where the pattern image for checking is formed is at a downstream side of the part of the transfer member where the pattern image for correcting is formed in a direction in which the transfer member is conveyed.

59. A computer readable medium storing computer program instructions which when executed by a computer performs an image forming operation of forming a color image by superimposing images of individual colors in a color image forming apparatus, the operation comprising:

forming a full color image on a recording sheet by forming latent images of individual colors on rotating or moving image bearing members of a plurality image forming devices of the apparatus by illuminating the image bearing members with image light according to image data of individual colors, developing the latent images of individual colors on the image bearing members with toner into images of individual colors by development devices of the plurality of image forming devices, respectively, and sequentially transferring the images of individual colors on the image bearing members with transfer devices of the plurality of image forming devices directly onto the recording sheet being conveyed by a transfer member of the apparatus while being superimposed one upon another on the recording sheet, or sequentially transferring the images of individual colors on the image bearing members with the transfer devices of the plurality of image forming devices once onto the transfer member while being superimposed one upon another on the transfer member and then transferring the superimposed images of individual colors on the transfer member onto the recording sheet;

forming a full color pattern image for correcting of a pattern of lines by forming latent pattern images for correcting of individual colors on the image bearing members of the plurality of image forming devices, developing the latent pattern images for correcting on the image bearing members with toner into pattern images for correcting of individual colors by the development devices of the plurality image forming devices, and transferring the pattern images for correcting of individual colors on the image bearing members onto the transfer member with the transfer devices of the plurality of image forming devices while being superimposed one on top of one another on the transfer member;

detecting each line of the pattern of lines of the pattern image for correcting formed on the transfer member with a detection device of the apparatus and outputting a detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member;

determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, by determining if a peak level of the detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member is equal to or lower than a reference value predetermined relative to a threshold level, wherein it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, when the peak level of the detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member has been determined to be equal to or lower than the reference value, and that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, when the peak level of the detection signal of any one line of the pattern of lines of the pattern image for correcting formed on the transfer member has been determined to be not equal to or lower than the reference value;

correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image by determining a width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member based on the detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member, output from the detection device, and the threshold level; and

changing the threshold level that is used in the correcting in determining the width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member,

wherein when it has been determined in the determining that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, the correcting is performed thereafter, and when it has been determined in the determining that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, the changing is performed thereafter and the correcting is performed after the changing has been performed.

60. The computer readable medium according to Claim 59, wherein the threshold level changed in the changing is returned to a level before having been changed after the correcting, that is performed after the changing, has been performed.

61. The computer readable medium according to Claim 59, wherein in the changing, the threshold level is changed by manipulation of an operation panel of the apparatus.

62. A computer readable medium storing computer program instructions which when executed by a computer performs an image forming operation of forming a color image by superimposing images of individual colors in a color image forming apparatus, the operation comprising:

forming a full color image on a recording sheet by forming latent images of individual colors on rotating or moving image bearing members of a plurality image forming devices of the apparatus by illuminating the image bearing members with image light according to image data of individual colors, developing the latent images of individual colors on the image bearing members with toner into the images of individual colors by development devices of the plurality of image forming devices, respectively, and sequentially transferring the images of individual colors on the image bearing members with transfer devices of the plurality of image forming device directly onto the recording sheet being conveyed by a transfer member of the apparatus while being superimposed one upon another on the recording sheet, or sequentially transferring the images of individual colors on the image bearing members with the transfer devices of the plurality of image forming devices once onto the transfer member while being superimposed one upon another on the transfer member and then transferring the superimposed images of individual colors on the transfer member onto the recording sheet;

determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, by:

forming a full color pattern image for checking of a pattern of lines on the transfer member by forming latent pattern images for checking of individual colors on the image bearing members of the plurality of image forming devices,

developing the latent pattern images for checking of individual colors on the image bearing members with toner into pattern images for checking of individual colors by the development devices of the plurality image forming devices,

transferring the pattern images for checking of individual colors on the image bearing members onto the transfer member with the transfer devices of the plurality of image forming devices while being superimposed one on top of another on the transfer member,

detecting each line of the pattern of lines of the pattern image for checking formed on the transfer member with a detection device of the apparatus to output a detection signal of each line of the pattern of lines of the pattern image for checking formed on the transfer member, and

determining if a peak level of the detection signal of each line of the pattern of lines of the pattern image for checking formed on the transfer member is equal to or lower than a reference value predetermined relative to a threshold level, wherein it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, when the peak level of the detection signal of each line of the pattern of lines of the pattern image for checking formed on the transfer member has been determined to be equal to or lower than the reference value, and that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, when the peak level of the detection signal of any one line of the pattern of lines of the pattern image for checking formed on the transfer member has been determined to be not equal to or lower than the reference value;

performing a correcting operation of correcting deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image, wherein in the operation, a pattern image for correcting of a pattern of lines is formed on the transfer member by forming latent pattern images for correcting of individual colors on the image bearing members of the plurality of image forming devices, the latent pattern images for correcting of individual colors are developed on the image bearing members with toner into pattern images for correcting of individual colors by the development devices of the plurality image forming devices, the pattern images for correcting of individual colors on the image bearing members are transferred onto the transfer member with the transfer devices of the plurality of image forming devices while being superimposed one on top of another on the transfer member, each line of the pattern of lines of the pattern image for correcting formed on the transfer member is detected with the

detection device to output a detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member, and a width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member is determined based on the detection signal of each line of the pattern of lines of the pattern image for correcting formed on the transfer member, output from the detection device, and the threshold level; and changing the threshold level that is used in the correcting operation performing in determining the width of each line of the pattern of lines of the pattern image for correcting formed on the transfer member,

wherein when it has been determined in the determining that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, the correcting operation is performed thereafter, and when it has been determined in the determining that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, the changing is performed thereafter and the correcting is performed after the changing has been performed.

63. The computer readable medium according to Claim 62, wherein the threshold level changed in the changing is returned to a level before having been changed after the correcting operation, that is performed after the changing, has been performed.

64. The computer readable medium according to Claim 62, wherein in the changing, the threshold level is changed by manipulation of an operation panel of the apparatus.

65. The computer readable medium according to Claim 62, wherein in the determining, it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, when it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, even after determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, a plurality of times at certain intervals.

66. The computer readable medium according to Claim 65, wherein in the determining, it is determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, when it has been determined that deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image cannot be correctly corrected, respectively, even after determining whether or not deviations in position and errors in magnification ratio of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, respectively, a plurality of times at intervals in which images of a predetermined quantity are formed.

67. The computer readable medium according to 62, wherein the pattern of lines of the pattern image for correcting and the pattern of lines of the pattern image for checking are similar to each other.

68. The computer readable medium according to Claim 62, wherein each of the pattern image for checking and the pattern image for correcting is formed on a part of the transfer member between a part of the transfer member conveying a recording sheet on which an image of a page has been formed, and a part of the transfer member conveying a recording sheet on which an image of a next page has been formed, and wherein the part of the transfer member where the pattern image for checking is formed is at a downstream side of the part of the transfer member where the pattern image for correcting is formed in a direction in which the transfer member is conveyed.

69. A method of correcting deviations in position of images of individual colors that are superimposed on top of one another to form a full color image in a color image forming apparatus, the method comprising:

determining whether or not deviations in position of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected by forming a pattern image for checking on a transfer member of the apparatus and detecting the pattern image for checking formed on the transfer member; and

correcting deviations in position of images of individual colors that are superimposed on top of one another to form a full color image by forming a pattern image for correcting on

the transfer member of the apparatus and detecting the pattern image for correcting formed on the transfer member,

wherein the correcting is performed when the determining has determined that deviations in position of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected.

70. The method according to Claim 69, further comprising:

changing an image forming condition of the apparatus,

wherein the changing is performed when the determining has determined that deviations in position of images of individual colors that are superimposed on top of one another to form a full color image can not be correctly corrected, and the correcting is performed after the changing has been performed.

71. A method of correcting deviations in position of images of individual colors that are superimposed on top of one another to form a full color image in a color image forming apparatus, the method comprising:

determining whether or not deviations in position of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected by forming a pattern image for checking on a transfer member of the apparatus and detecting the pattern image for checking formed on the transfer member;

correcting deviations in position of images of individual colors that are superimposed on top of one another to form a full color image by forming a pattern image for correcting on the transfer member of the apparatus and detecting the pattern image for correcting formed on the transfer member using a predetermined threshold level; and

changing the threshold level used in detecting the pattern image for correcting formed on the transfer member,

wherein the correcting is performed when the determining has determined that deviations in position of images of individual colors that are superimposed on top of one another to form a full color image can be correctly corrected, and the changing is performed when the determining has determined that deviations in position of images of individual colors that are superimposed on top of one another to form a full color image can not be correctly corrected, and

wherein when the determining has determined that deviations in position of images of individual colors that are superimposed on top of one another to form a full color image

cannot be correctly corrected, the correcting is performed after the changing has been performed.